APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,886	08/30/2001	Michael Anthony Pugel	PU010164	9822

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EXAMINER
MEHRA, INDER P

ART UNIT	PAPER NUMBER
2666	

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/942,886	PUGEL, MICHAEL ANTHONY
	Examiner	Art Unit	
	Inder P. Mehra	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>18 May 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
      closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>2-8 and 13-21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>2-8 and 13-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 August 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to amendment dated: 5/18/2005.

Specification

2.   The disclosure is objected to because of the following informalities:

Refer to page 1 lines 4-6. Application no. of simultaneously filed application and its

status be provided. in place of docket number.

Appropriate correction is required.

Claim Objections

3.   Claims 3 (line 10), 13 (line 9), 16 (lines 1 and 8) are objected to because of the following

informalities:

Claims 3 (line 10) recite limitation "adapting", which makes language that suggests or

makes optional but does not require steps to be performed or does not limit a claim to a

particular structure does not limit the scope of a claim or claim limitation, see MPEP

2106, page 2100-8. Similar problem exists in claims 13 (line 9) and 16 (lines 1 and 8).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
subject matter which the applicant regards as his invention.

5.   Claim 14-15 and 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

      a.   Claim 14 recites the limitation "said respective packet groups" in line 5. There is

no antecedent basis for this limitation in the claim.

      b.   Claim 19 recites the limitation "said identified transmission channel" in lines 5-6.

There is no antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claim 2-3, 6, 13-14, 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Gordon et al**, hereinafter, Gordon, as above, in view of **Bonn** (US Application Publication

No. 2004/0032829).

      For claims 3, 13 and 16, Gordon discloses a method , comprising:

- associating each of at least one group of packets forming a bit stream with a

  stream identifier and a respective sequence code, said at least one group of

  packets comprising at least one bit stream packet, **(coding a first sequence of**

  pictures having included therein a time-varying portion; defining one or

  more slices for the time-varying portion in each coded picture in the first

sequence; assigning the coded first sequence with a first packet identifier

(PID); coding one or more second sequences of pictures, wherein each

second sequence of pictures includes a portion specific to the sequence;

defining one or more slices for the sequence-specific portion in each coded

picture in each second sequence; and assigning each coded second

sequence with a respective second PID; multiplexing packets with the

first PID with packets with the second PIDs to generate one or more

transport streams (Channels), refer to col. 44 lines 47), and

- transmitting, via any one of a plurality of available transmission channels,

  each of said at least one group of packets, said transmission channels

  nominally transmitting NULL packets in the event of underutilization, said at

  least one group of packets being transmitted in place of said nominally

  transmitted NULL packets (The null data may be replaced by the graphics

  grid slices (e.g., at a later step, within the LNE, refer to col. 33 lines 35-40);

- said data structure comprising a header portion and a payload portion, said

  payload portion, as recited by claim 16, refer to col. 9 lines 45-50 and col. 12

  lines 24-26.

Gordon does not disclose explicitly the following limitation, which are disclosed by

Bonn, as follows:

- "adapting a packet structure for at least one packet of said at least one group

  of packets to conform to a network packet structure suitable for use by said

  transmission channels", (packets, or other units of data transmission,

conforming to other network protocols, refer to paragraph 0036, claims 16 and

26).

It would have been obvious to the person of ordinary skill in the art at the time the invention to

use the capability of "adapting a packet structure for at least one packet of said at least one

group of packets to conform to a network packet structure suitable for use by said transmission

channels". The motivation for doing so as taught by Bonn being "classifying packets to identify

the network sessions to which they belong would have considerable utility".

For claims 2, 6, 14 and 19, Gordon discloses all the limitations of subject matter of these

claims including the following limitations:

- wherein at least one of said at least one group of packets forming said bit

  stream are correlated with channel identification and time of transmission

  information for, respectively, indicating which of said plurality of

  transmission channels, **as recited by claim 6,** will carry respective packet

  groups and the time said at least one group of packets are carried, (the method

  comprising: coding a first sequence of pictures having included therein a

  time-varying portion; defining one or more slices for the time-varying

  portion in each coded picture in the first sequence; assigning the coded first

  sequence with a first packet identifier (PID); coding one or more second

  sequences of pictures, wherein each second sequence of pictures includes a

  portion specific to the sequence, refer to col. 44 lines 29-42, and further, refer

to "the final transport stream first includes the video slice packets for time

periods", refer to col. 20 lines 57-59.

It would have been obvious to the person of ordinary skill in the art at the time the

invention to use the capability of determining the loading of each of a plurality transmission

channels; determining an allocation of bit stream packets among the transmission channels. The

capability can be implemented at the Network Packet converter. The motivation for doing so as

taught by Yamada being that different paths are routed for the same flow.

8.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al**,

hereinafter, Gordon in view of Bonn, as above, further, in view of **Yamada et al** (US Patent

Application No.2001/0007557), hereinafter, Yamada.

For claim 7 Gordon in view of Bonn discloses all the limitations, including inserting non-

allocated bit stream packets into said transmission channels in place of said nominally

transmitted NULL packets, (refer to "the null data may be replaced by the graphics grid slices

(e.g., at a later step, within the LNE, refer to col. 33 lines 35-40), of subject matter, with the

exception of the following limitation, which is disclosed by Yamada, as follows:

- determining the loading of each of a plurality transmission channels;

   determining an allocation of bit stream packets among the transmission

   channels; (refer to " determining a transfer path includes: calculating an

   allocation rate of the stream count being currently allocated to said load

   distribution ratio for each said preset said transfer destination route, when said

another transfer destination route is determined for said received stream of

packets"; refer to page 43 claim 56).

It would have been obvious to the person of ordinary skill in the art at the time the

invention to use the capability of determining the loading of each of a plurality transmission

channels; determining an allocation of bit stream packets among the transmission channels. The

capability can be implemented at the Network Packet converter. The motivation for doing so as

taught by Yamada being that different paths are routed for the same flow.

9.   Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al**,

hereinafter, Gordon in view of **Bonn**, as above, further, in view of **Langridge et al** (US Patent

Application No.2005/0086555), hereinafter, Langridge.

For claim 4, Gordon in view of Bonn discloses all the limitations with the exception of

the following limitation, which is disclosed by Langridge, as follows:

- said network packet structure comprises a header portion and a
  payload portion, said payload portion including at least one
  associated groups of packets, refer to paragraph 0039.

It would have been obvious to the person of ordinary skill in the art at the time the

invention to use the capability of "said network packet structure comprises a header

portion and a payload portion, said payload portion including at least one

associated groups of packets". The motivation for doing so as taught by Langridge being

that different paths are routed for the same flow.

For claim 5, Gordon discloses the limitation, said network packet structure includes stream identifier and sequence code infonnation corresponding to said at least one group of packets included within said payload portion. refer to col. 44 line 47

10.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al,** hereinafter, Gordon in view of **Bonn**, as above, further,r in view of **Yamada et al,** hereinafter, Yamada, as above, and further in view of **Birch** (US Application Publication No. 2002/0154694).

For claim 8, Gordon in view of Bonn and Yamada disclose all the limitations of subject matter, including the following limitation, which is disclosed by Yamada, as follows:

- determining the loading of each of a plurality transmission channels;
  determining an allocation of bit stream packets among the transmission
  channels; (refer to " determining a transfer path includes: calculating an
  allocation rate of the stream count being currently allocated to said load
  distribution ratio for each said preset said transfer destination route, when said
  another transfer destination route is determined for said received stream of
  packets"; refer to page 43 claim 56).

Gordon and Yamada do not disclose the following limitation, which is disclosed by Birch, as follows:

- transmission channel data rates, bit stream data rate, transmission channel
  utilization level, transmission channel loading level, transmission channel
  scheduling, bit stream quality of service requirement, refer to (Central bit rate

controller 1007 returns the selected rate to channel, paragraph 0094 and

paragraph 0135).

It would have been obvious to the person of ordinary skill in the art at the time the

invention to use the capability of determining the transmission channel data rate. The capability

can be implemented at the Network Packet converter. The motivation for doing so as taught by

Yamada being that different paths are routed for the same flow.

11.   Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Gordon et al**,

hereinafter, Gordon in view of **Bonn**, as above, in view of **Hamalainen et al (US Patent No.**

5,640,395), hereinafter, Hamalainen.

For claim 15, Gordon in view of Bonn discloses all the limitations of subject matter, with

the exception of the following limitation, which is disclosed by Hamalainen, as follows:

- wherein said network interface utilizes said channel identification and time of

  transmission information to allocate respective transmission channel time slots

  to said at least one group of packets to be transmitted via said identified

  channel (refer to "In the channel request burst, the mobile station uses an Air-

  Interface Channel Identifier containing the network address of the mobile

  station, which address identifies the logical channel, and where it requests one

  or more time slots from the frame, according to the needs of the moment. In

  the downlink direction, i.e. from the network (base station) to the mobile

  station, there are likewise two types of time slots: I-slots reserved for

  transmitting information", refer to col. 2 lines 2-11.).

It would have been obvious to the person of ordinary skill in the art at the time the

invention to use the capability of utilizing said channel identification and time of transmission

information to allocate respective transmission channel time slots to said at least one group of

packets to be transmitted via said identified channel. The capability can be implemented at the

Network Interface. The motivation for doing so as taught by Hamalainen being that different

paths and time slots are used for routing the same flow.

12.   Claims 17-18 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Gordon et al, hereinafter, Gordon in view of Bonn, as above, in view of **Yasuda et al** (US

Patent No.6,373,905), hereinafter, Yasuda.

For claims 17-18 and 20-21, Gordon in view of Bonn discloses all the limitations, with

the exception of the following limitations, which are disclosed by Yasuda, as follows:

- wherein said stream identifier and said sequence code are stored within said
  header portion of said data structure, **as recited by claim 17**, refer to col. 2
  lines 37-44.

- wherein said stream identifier and said sequence code are stored within the
  payload portion of said data structure, **as recited by claim 18**, , refer to col. 2
  lines 37-44.

- wherein said channel identification and time of transmission information are
  stored within said header portion of said data structure, **as recited by claim
  20**, , refer to col. 2 lines 37-44.

- wherein said channel identification and time of transmission information are stored within the payload portion of said data structure, **as recited by claim 21, ,** refer to col. 2 lines 37-44.

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability of stream identifier and said sequence code are stored within said header portion as well as payload portion of said data structure . The capability can be implemented at the Network Packet converter. The motivation for doing so as taught by Yasuda being that different paths are routed for the same flow.

Response to Arguments

13.   Applicant's arguments with respect to claim 2-8 and 13-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder P Mehra
Examiner
Art Unit 2666

FRANK DUONG
PRIMARY EXAMINER